

AMENDMENTS TO THE CLAIMS

1-12. (CANCELED)

13. (ORIGINAL) A particle detector comprising:

- a. a first delay line anode including an elongated first anode signal line, a first anode ground layer, and a first anode dielectric layer therebetween;

the first delay line anode further including a first anode active area upon which particles impinge, the first anode active area containing at least a portion of the first anode signal line thereon;

- b. a second delay line anode including an elongated second anode signal line, a second anode ground layer, and a second anode dielectric layer therebetween;

the second delay line anode further including a second anode active area which receives particles from the first anode active area, the second anode active area containing at least a portion of the second anode signal line thereon;

wherein at least a portion of the second anode active area has the thickness of its second anode dielectric layer being identical to that of the first anode dielectric layer in the first anode active area.

14. (PREVIOUSLY PRESENTED) The particle detector of claim 13 further wherein at least a portion of the second anode active area has the configuration of its second anode signal line being identical to that of the first anode signal line in the first anode active area.

15. (PREVIOUSLY PRESENTED) The particle detector of claim 14 further wherein at least a portion of the second anode active area has the configuration of its second anode ground layer being identical to that of the first anode ground layer in the first anode active area.

16. **(PREVIOUSLY PRESENTED)** The particle detector of claim 13 further wherein at least a portion of the second anode active area has the thickness of its second anode ground layer being identical to that of the first anode ground layer in the first anode active area.
17. **(PREVIOUSLY PRESENTED)** The particle detector of claim 16 further wherein at least a portion of the second anode active area has the configuration of its second anode ground layer being identical to that of the first anode ground layer in the first anode active area.
18. **(PREVIOUSLY PRESENTED)** The particle detector of claim 13 wherein no structure is interposed between the first anode active area and the second anode active area.
19. **(PREVIOUSLY PRESENTED)** The particle detector of claim 18 wherein one of:
- a. vacuum, or
 - b. a gas
- is interposed between the first and second delay line anodes.
20. **(PREVIOUSLY PRESENTED)** The particle detector of claim 13 wherein the second delay line anode may be interchanged with the first delay line anode, whereby the second anode active area receives particles from the first anode active area, without substantial effect on detector performance.
21. **(PREVIOUSLY PRESENTED)** The particle detector of claim 13 wherein the first and second delay line anodes are adjustably mounted in spaced relation to have adaptable spacing therebetween.

22. **(PREVIOUSLY PRESENTED)** The particle detector of claim 13 wherein at least one of the first and second delay line anodes has:
- its signal line and ground layer defined by metallic foil, and
 - its dielectric layer defined by a thermoplastic film,
- wherein the signal line and ground layer are laminated onto opposite sides of the dielectric layer.
23. **(PREVIOUSLY PRESENTED)** The particle detector of claim 13 wherein at least one of the first and second delay line anodes is formed of flex circuit material.
24. **(CURRENTLY AMENDED)** A particle detector comprising:
- a first delay line anode having a first anode active area thereon, upon which particles impinge;
 - a second delay line anode having a second anode active area thereon, upon which particles are received from the first delay line anode;
- wherein:
- (1) no structure is interposed between the first anode active area and the second anode active area,
 - (2) the first and second delay line anodes each include a signal layer and a ground layer with a dielectric layer interposed therebetween, and
 - (3) the dielectric layer of the first delay line anode has the same thickness as the dielectric layer of the second delay line anode.
25. **(PREVIOUSLY PRESENTED)** The particle detector of claim 24 wherein the first anode active area and second anode active area are spaced by:
- vacuum, or
 - a gas.

26. **(PREVIOUSLY PRESENTED)** The particle detector of claim 24 wherein the first and second delay line anodes are adaptably mounted in spaced relation to have adjustable spacing therebetween.
27. **(PREVIOUSLY PRESENTED)** The particle detector of claim 26 wherein the first anode active area and second anode active area are spaced by:
- a. vacuum, or
 - b. a gas.
28. **(CURRENTLY AMENDED)** The particle detector of claim 24 wherein ~~the first and second delay line anodes each include a signal layer and a ground layer with a dielectric layer interposed therebetween, the signal layer having~~ the signal layer has an elongated signal line defined thereon, and wherein the signal line of the first delay line anode is identical to the signal line of the second delay line anode.
29. **(CANCELED)**

30. **(PREVIOUSLY PRESENTED)** A particle detector comprising:
- a. a first delay line anode including an elongated first anode signal line, a first anode ground layer, and a first anode dielectric layer therebetween;
the first delay line anode further including a first anode active area upon which particles impinge, the first anode active area containing at least a portion of the first anode signal line thereon;
 - b. a second delay line anode including an elongated second anode signal line, a second anode ground layer, and a second anode dielectric layer therebetween;
the second delay line anode further including a second anode active area which receives particles from the first anode active area, the second anode active area containing at least a portion of the second anode signal line thereon;
- wherein the first and second delay line anodes:
- (1) are spaced by a vacuum or by gas; and
 - (2) the first anode dielectric layer has the same thickness as the second anode dielectric layer.
31. **(PREVIOUSLY PRESENTED)** The particle detector of claim 30 wherein the first and second delay line anodes are adaptably mounted in spaced relation to have adjustable spacing therebetween.
32. **(PREVIOUSLY PRESENTED)** The particle detector of claim 30 wherein the first and second delay line anodes are identical.
33. **(PREVIOUSLY PRESENTED)** The particle detector of claim 30 wherein the first and second delay line anodes are interchangeable within the particle detector without substantial effect on detector performance.

34. **(PREVIOUSLY PRESENTED)** The particle detector of claim 30 wherein the length of the second delay line anode's elongated signal line resting within the second anode active area has a configuration and dimensions identical to the portion of the first delay line anode's elongated signal line resting within the first anode active area.
35. **(PREVIOUSLY PRESENTED)** The particle detector of claim 30 wherein at least one of the first and second delay line anodes is defined by metallic foil layers laminated onto opposing sides of a thermoplastic film.
36. **(PREVIOUSLY PRESENTED)** The particle detector of claim 30 wherein at least one of the first and second delay line anodes is formed of flex circuit material.
37. **(PREVIOUSLY PRESENTED)** The particle detector of claim 30 wherein at least one of the first and second delay line anodes is sufficiently flexible that it may be bent to adopt an angle of curvature of at least 45° without breaking.
38. **(PREVIOUSLY PRESENTED)** The particle detector of claim 30 wherein the first and second delay line anodes include parallel lengths of signal line, wherein:
- a. several lengths extend at least partially outside of the anode's active area, and
 - b. the lengths of signal line in the first delay line anode extend at a non-parallel angle with respect to the lengths of signal line in the second delay line anode.

39. **(CURRENTLY AMENDED)** A particle detector comprising:
- a. a first delay line anode including an elongated first anode signal line, a first anode ground layer, and a first anode dielectric layer therebetween;
the first delay line anode further including a first anode active area upon which particles impinge, the first anode active area containing at least a portion of the first anode signal line thereon;
 - b. a second delay line anode including an elongated second anode signal line, a second anode ground layer, and a second anode dielectric layer therebetween;
the second delay line anode further including a second anode active area which receives particles from the first anode active area, the second anode active area containing at least a portion of the second anode signal line thereon;
- wherein:
- (1) the first and second delay line anodes are adaptably mounted in spaced relation to have adjustable spacing therebetween, and
 - (2) at least one of the first and second delay line anodes is sufficiently flexible that it may be bent to adopt an angle of curvature of at least 45° without breaking.
40. **(PREVIOUSLY PRESENTED)** The particle detector of claim 39 wherein the first and second delay line anodes are identical.
41. **(PREVIOUSLY PRESENTED)** The particle detector of claim 39 wherein the first and second delay line anodes are interchangeable within the particle detector without substantial effect on detector performance.

42. **(PREVIOUSLY PRESENTED)** The particle detector of claim 39 wherein the length of the second delay line anode's elongated signal line resting within the second anode active area has a configuration and dimensions identical to the portion of the first delay line anode's elongated signal line resting within the first anode active area.
43. **(PREVIOUSLY PRESENTED)** The particle detector of claim 39 wherein at least one of the first and second delay line anodes is defined by metallic foil layers laminated onto opposing sides of a thermoplastic film.
44. **(PREVIOUSLY PRESENTED)** The particle detector of claim 39 wherein at least one of the first and second delay line anodes is formed of flex circuit material.
45. **(CANCELED)**
46. **(PREVIOUSLY PRESENTED)** The particle detector of claim 39 wherein the first and second delay line anodes include parallel lengths of signal line, wherein:
- a. several lengths extend at least partially outside of the anode's active area, and
 - b. the lengths of signal line in the first delay line anode extend at a non-parallel angle with respect to the lengths of signal line in the second delay line anode.
47. **(CANCELED)**
48. **(PREVIOUSLY PRESENTED)** The particle detector of claim 39 wherein vacuum is interposed between the first and second delay line anodes.
49. **(PREVIOUSLY PRESENTED)** The particle detector of claim 39 wherein a gas is interposed between the first and second delay line anodes.

50. (PREVIOUSLY PRESENTED) The particle detector of claim 39 wherein the dielectric layer of the first delay line anode has the same thickness as the dielectric layer of the second delay line anode.
51. (NEW) A particle detector comprising:
- a. a first delay line anode including an elongated first anode signal line, a first anode ground layer, and a first anode dielectric layer therebetween;
the first delay line anode further including a first anode active area upon which particles impinge, the first anode active area containing at least a portion of the first anode signal line thereon;
 - b. a second delay line anode including an elongated second anode signal line, a second anode ground layer, and a second anode dielectric layer therebetween;
the second delay line anode further including a second anode active area which receives particles from the first anode active area, the second anode active area containing at least a portion of the second anode signal line thereon;
- wherein:
- (1) the first and second delay line anodes are adaptably mounted in spaced relation to have adjustable spacing therebetween, and
 - (2) the dielectric layer of the first delay line anode has the same thickness as the dielectric layer of the second delay line anode.
52. (NEW) The particle detector of claim 51 wherein the first and second delay line anodes are identical.
53. (NEW) The particle detector of claim 51 wherein the first and second delay line anodes are interchangeable within the particle detector without substantial effect on detector performance.

54. (NEW) The particle detector of claim 51 wherein the length of the second delay line anode's elongated signal line resting within the second anode active area has a configuration and dimensions identical to the portion of the first delay line anode's elongated signal line resting within the first anode active area.
55. (NEW) The particle detector of claim 51 wherein at least one of the first and second delay line anodes is defined by metallic foil layers laminated onto opposing sides of a thermoplastic film.
56. (NEW) The particle detector of claim 51 wherein at least one of the first and second delay line anodes is formed of flex circuit material.
57. (NEW) The particle detector of claim 51 wherein at least one of the first and second delay line anodes is sufficiently flexible that it may be bent to adopt an angle of curvature of at least 45° without breaking.
58. (NEW) The particle detector of claim 51 wherein the first and second delay line anodes include parallel lengths of signal line, wherein:
- a. several lengths extend at least partially outside of the anode's active area, and
 - b. the lengths of signal line in the first delay line anode extend at a non-parallel angle with respect to the lengths of signal line in the second delay line anode.
59. (NEW) The particle detector of claim 51 wherein vacuum is interposed between the first and second delay line anodes.
60. (NEW) The particle detector of claim 51 wherein a gas is interposed between the first and second delay line anodes.